PBS

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TRI-CITIES

April 27, 2007

Mr. James Winkler
Burgard 789, LLC
210 SW Morrison St., Suite 600
Portland, Oregon 97204

Via Email: jhw@winklercompanies.com

Re: Report on Phase Two Site Investigation
Lots 7, 8 and 9, Burgard Yards (9125 N. Time Oil Road), Portland, Oregon

Dear Mr. Winkler:

PBS has prepared this report to summarize the recent activities related to the Phase Two Environmental Site Assessment for the industrial property located at 9125 N. Time Oil Road in Portland, Oregon. This report provides the project background with a brief description of the site, and then summarizes the tasks in the order they occurred.

PROJECT BACKGROUND

PBS was contracted to perform a Phase One Environmental Site Assessment (ESA) for the property in March 2007. Historical research for that assessment identified previous land use, as well as previous site investigations, indicating the potential for contaminated soil or groundwater at the site. Specifically, the following Recognized Environmental Conditions were identified in the ESA:

- The industrial/manufacturing use of the property beginning in 1979, as well as historic log & pipe storage, may have resulted in soil or groundwater contamination.
- An investigation conducted in 2000 identified heavy oil contamination in shallow soil.
- Prior investigations conducted at the subject property and adjoining properties have identified widespread low levels of PCB contamination in soil.
- An electrical substation with known PCB-containing transformer oils is located on the east-adjacent property.
- Fill material, including river dredge materials, was placed at the subject property prior to construction of the shipyard barracks in the 1940's and continuing into the 1970's.

Based on these findings, PBS proposed to conduct a subsurface investigation. As identified in PBS' revised work plan dated April 11, 2007, the scope of work for this project included advancing eight boreholes to eight feet below ground surface (bgs). Per the current property

owner's request, the investigation was limited to collection of soil samples for laboratory analysis; no groundwater sampling was performed.

SITE DESCRIPTION

The subject property is located in a heavily industrialized area of northwest Portland. Historical sources indicate that, prior to World War II, the subject property was part of a large marshy area between the Willamette River and the Columbia Slough. By the early 1940's, fill material had been placed on the subject property, and it became the barracks for the Oregon Shipbuilding Corporation during the war. By 1956, most of the shipyard barracks had been demolished, with just small portions of the buildings remaining. From that time until the late 1970's, the property sat vacant with occasional storage (items not identified) noted in aerial photographs. In 1978, the present day building was constructed. Former tenants of this building have been Walker Manufacturing (light manufacturing and warehouse), Crown Beverage (warehouse) and Envirocon (brief 2-month office tenancy while waiting for nearby space to be renovated). Currently, Boydstun Metal Works manufactures car haulers at the subject property.

The subject property is located on relatively flat ground approximately 30 feet above mean sea level. The subject property is situated between the Columbia Slough, located less than ½ mile to the northeast and the Willamette River, located less than ½ mile to the west. One large manufacturing building occupies the north half of the site. A small guard shack is present on the east boundary next to N. Time Oil Road. The remainder of the site is used for truck and hauler storage, materials storage and vehicle parking.

SOIL INVESTIGATION

On April 13, 2007, PBS completed the subsurface soil investigation on the subject property using a GeoProbe direct-push drilling rig operated by Cascade Drilling of Portland, Oregon. All sampling equipment was decontaminated between holes with an Alconox detergent wash and water rinse to prevent cross-contamination.

A total of eight borings, B-1 to B-8, were placed at the subject property (Figure 1). The borings were advanced to depths ranging from 5 feet bgs to 15 feet bgs, depending on where groundwater was first encountered. Soil samples were collected in each boring from the shallow interval located 2 feet below ground surface (bgs) and from directly above the saturated zone. In two borings (B-1 and B-2), groundwater was shallow enough that the 2 feet bgs sample also served as the sample directly above the saturated zone.

Soil samples collected from the borings were placed in laboratory-prepared containers, sealed with a Teflon-lined lid, labeled, and stored in an ice chest for the duration of the site work.

Samples were transported to TestAmerica Labs in Beaverton, Oregon, under chain-of-custody documentation, and were analyzed for PCBs (EPA Method 8082) and petroleum hydrocarbon identification (method NWTPH-HCID). HCID tests that detected hydrocarbon fractions had follow-up analyses.

Boring locations are shown in Figure 1 and graphic logs of subsurface soil conditions are presented in Appendix A.

RESULTS

Appendix A contains the borehole logs for the eight borings. The soils at the site were primarily a fine-grained sand with occasional silt and clay observed (based on field observations). Groundwater was encountered at various depths ranging from 2.5 feet to 10 feet bgs. Across the site, the elevation of the ground surface varies up to five feet, which likely explains the variation of depth to groundwater.

No field observations, such as visible staining or odors, were observed in any of the boreholes. The analytical results are summarized in Tables 1 and 2 and the laboratory report is provided in Appendix B.

Of the fourteen samples collected, only one had a detection of petroleum hydrocarbons, which the lab noted as resembling creosote. The sample collected at 2 feet bgs from B-4 had 132 mg/kg of diesel and 236 mg/kg of heavy oil (following silica gel preparation). This is far below the Oregon DEQ Occupational Risk-Based Concentration (RBC) for diesel set at 3,900 mg/kg for Ingestion, Dermal Contact, and Inhalation (collectively known as "direct contact"). Additional analyses were run on this sample for polynuclear aromatic hydrocarbons (PAHs) and pentachlorophenol (PCP) to further characterize the contamination. Fourteen PAH compounds were detected but only one, benzo(a)pyrene, exceeded the direct contact RBC of 0.27 mg/kg with a concentration of 1.08 mg/kg. No PCP was detected.

Two of the fourteen samples had detections of PCBs. The samples collected at 2 feet bgs from B-4 and B-5 had detections of Aroclors 1254 and 1260. The B-4 sample exceeded the RBC of 0.98 for Aroclor 1254.

DISCUSSION AND RECOMMENDATIONS

Based on the findings of the April 2007 Phase One Environmental Site Assessment, and the findings of this subsurface investigation, it is concluded that the low levels of PCB and PAH contamination are from the same source as the PCBs that have been historically detected on neighboring properties to the west and in the local vicinity. The sample collected from the 2 feet bgs interval in borehole B-4 (southwest corner) exceeded the direct contact RBC for Aroclor 1254 and benzo(a)pyrene. However, the concentrations did not significantly exceed the RBCs, and it is PBS' opinion that no additional subsurface investigation is warranted. It

is recommended that the gravel parking lot surface in the southwest quadrant be maintained to avoid raising soil dust with truck and other vehicle movement.

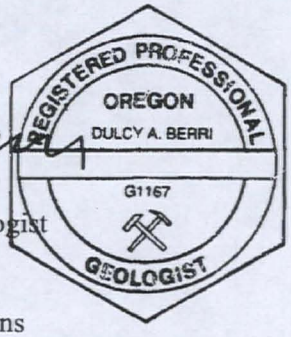
For the one borehole (B-4) exceeding the direct contact RBCs, the detected PCB (1.13 mg/kg) and benzo(a)pyrene (1.08 mg/kg) concentrations were below the RBCs for construction worker (PCB: 7.6 mg/kg, benzo(a)pyrene: 2.1 mg/kg) or excavation worker (PCB: 210 mg/kg, benzo(a)pyrene: 59 mg/kg). The detected concentrations would not require additional measures to protect worker health and safety in construction or excavation activities.

For future soil excavation activities and potential off-site disposal, the PCB concentrations are substantially below the 50 mg/kg level set for Subtitle D (non-hazardous) landfill disposal. However, Waste Management has set much lower limits for local landfills (such as Hillsboro or Riverbend) so excavated soils would need to be tested for PCBs prior to disposing of off-site.

LIMITATION OF SCOPE:

PBS has prepared this report for Burgard 789 LLC. This report is not intended for use by others without the written consent of PBS. Our interpretation of subsurface conditions in this study is based on field observations and analytical data from the indicated explorations. Other regulated substances may exist in portions of the site that were not explored or analyzed.

Sincerely,



Dulcy Berri, RG
Principal/Senior Hydrogeologist

Attachments
Figure 1 – Borehole Locations
Table 1 – Soil Investigation Laboratory Results – Petroleum Hydrocarbons and PCBs
Table 2 – Soil Investigation Laboratory Results - Polynuclear Aromatic Hydrocarbons
Appendix A – Borehole Logs
Appendix B – Laboratory Report

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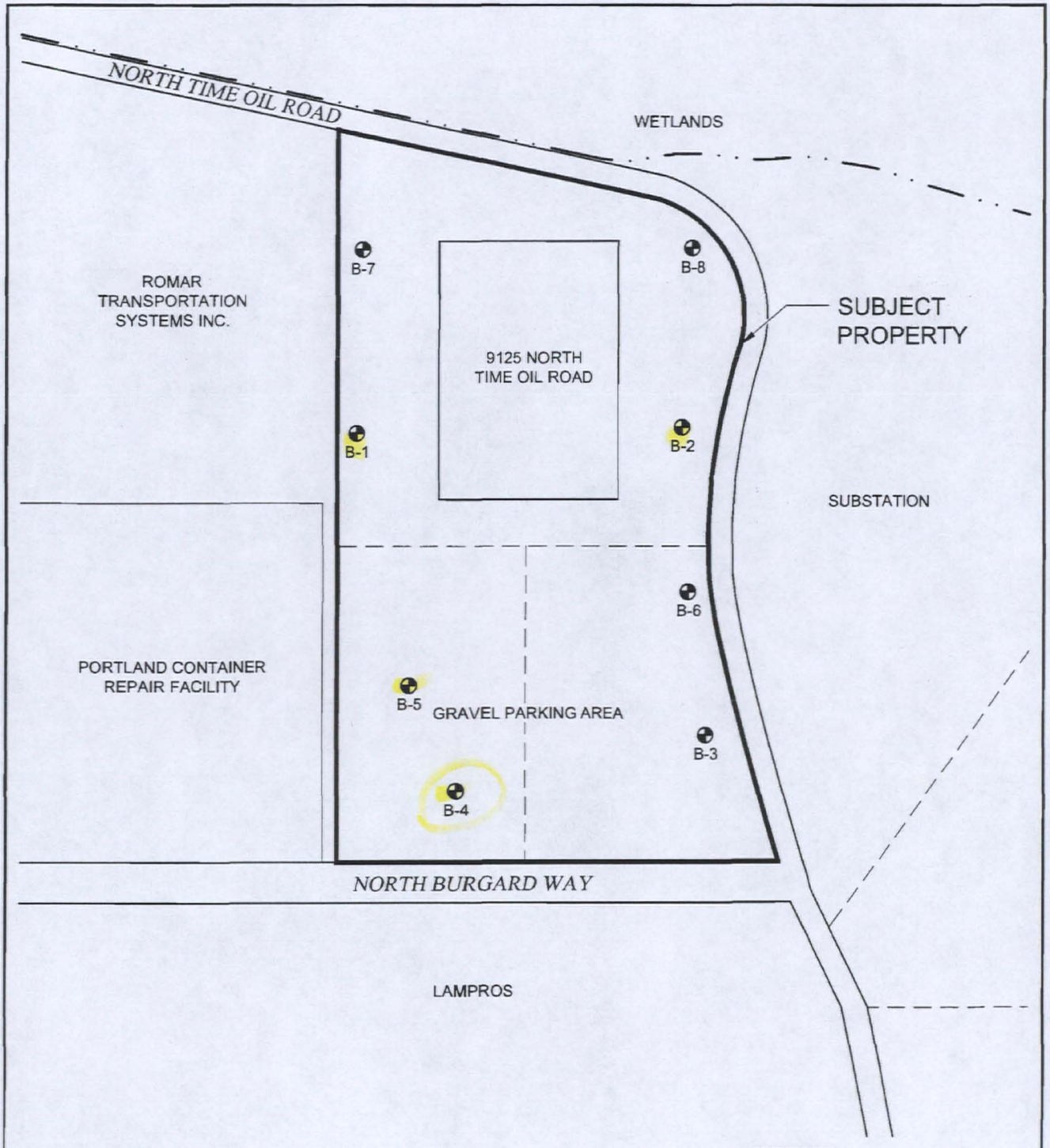
Figure



PREPARED FOR: BURGARD 789 LLC

PBS	PROJECT #: 18569.000 DATE: APRIL 2007	BOREHOLE LOCATIONS 9125 NORTH TIME OIL ROAD PORTLAND, OREGON	FIGURE 1

Tables

Table 1: Soil Investigation Laboratory Results - Petroleum Hydrocarbons and PCBs
9125 N. Time Oil Road, Portland, Oregon

			Petroleum HC			PCBs						
Sample number	Sample Date	Sample Depth (ft)	Gasoline	Diesel	Heavy Oil	Aroclor 1016	Aroclor 1221	Aroclor 1232	Aroclor 1242	Aroclor 1248	Aroclor 1254	Aroclor 1260
B-1-2'	4/13/2007	2	<23.2	<58.1	<116	<0.0394	<0.0792	<0.0394	<0.0394	<0.0394	<0.0394	<0.0394
B-2-2'	4/13/2007	2	<22.3	<55.8	<112	<0.0385	<0.0774	<0.0385	<0.0385	<0.0385	<0.0385	<0.0385
B-3-2'	4/13/2007	2	<20.4	<51.0	<102	<0.0378	<0.0761	<0.0378	<0.0378	<0.0378	<0.0378	<0.0378
B-3-7'	4/13/2007	7	<21	<52.4	<105	<0.0382	<0.0768	<0.0382	<0.0382	<0.0382	<0.0382	<0.0382
B-4-2'	4/13/2007	2	<18.9	132	236	<0.259	<0.521	<0.259	<0.259	<0.259	1.13	0.569
B-4-9.5'	4/13/2007	9.5	<17.5	<43.9	<87.7	<0.0361	<0.0726	<0.0361	<0.0361	<0.0361	<0.0361	<0.0361
B-5-2'	4/13/2007	2	<21.5	<53.7	<107	<0.0385	<0.0775	<0.0385	<0.0385	<0.0385	0.244	0.153
B-5-6'	4/13/2007	6	<22	<54.9	<110	<0.0477	<0.0959	<0.0477	<0.0477	<0.0477	<0.0477	<0.0477
B-6-2'	4/13/2007	2	<21.8	<54.5	<109	<0.0374	<0.0753	<0.0374	<0.0374	<0.0374	<0.0374	<0.0374
B-6-7'	4/13/2007	7	<22.2	<55.6	<111	<0.0397	<0.080	<0.0397	<0.0397	<0.0397	<0.0397	<0.0397
B-7-2'	4/13/2007	2	<19.4	<48.6	<97.1	<0.0355	<0.080	<0.0355	<0.0355	<0.0355	<0.0355	<0.0355
B-7-5'	4/13/2007	5	<25.3	<63.2	<126	<0.0448	<0.0902	<0.0448	<0.0448	<0.0448	<0.0448	<0.0448
B-8-2'	4/13/2007	2	<18.6	<46.4	<92.9	<0.037	<0.0743	<0.037	<0.037	<0.037	<0.037	<0.037
B-8-6'	4/13/2007	6	<23.1	<57.8	<116	<0.0423	<0.085	<0.0423	<0.0423	<0.0423	<0.0423	<0.0423
Oregon Risk-Based Concentrations (OCCUPATIONAL)	Ingestion, Dermal Contact, Inhalation		720	3900	NL	0.98	0.98	0.98	0.98	0.98	0.98	0.98
	Volatilization to Outdoor Air		4500	>max	NL	NV	NV	NV	NV	NV	NV	NV
	Vapor Intrusion into Buildings		140	>max	NL	NV	NV	NV	NV	NV	NV	NV
	Leaching to Groundwater		26	2800	NL	>1.29 *	>1.29	>1.29	>1.29	>1.29	>1.29	>1.29

All values in milligrams per kilogram (mg/kg)
NV - Compound not volatile - pathway isn't applicable
NL - No Level Set
>max: Risk Based Concentration is greater than 100,000 mg/kg
* Csat concentration for PCBs is 1.29 mg/kg. Concentrations in excess of this value indicate free product might be present.

Table 2: Soil Investigation Laboratory Results - Polynuclear Aromatic Hydrocarbons
9125 N. Time Oil Road, Portland, Oregon

Sample number	Sample Date	Sample Depth (ft)	Acenaphthene	Acenaphthylene	Anthracene	Benz[a]anthracene	Benzo[a]pyrene	Benzo[b]fluoranthene	Benzo[k]fluoranthene	Benzo(ghi)perylene	Chrysene	Dibenz[a,h]anthracene	Fluoranthene	Fluorene	Indeno[1,2,3-cd]pyrene	Naphthalene	Pentachlorophenol	Phenanthrene	Pyrene
B-4-2'	4/13/2007	2	<0.000148	0.167	19.7	0.772	1.08	1.31	0.757	1.31	1.8	0.246	1.52	0.997	0.912	<0.000148	<0.000741	2.41	2.03
Oregon Risk-Based Concentrations (OCCUPATIONAL)	Ingestion, Dermal Contact, Inhalation		41000	NS	>max	2.7	0.27	2.7	27	NL	270	0.27	29000	35000	2.7	770	13	NL	21000
	Volatilization to Outdoor Air		NV	NS	NV	NV	NV	NV	NV	NL	NV	NV	NV	> max	NV	>312	NV	NL	NV
	Vapor Intrusion into Buildings		NV	NS	NV	NV	NV	NV	NV	NL	NV	NV	NV	> max	NV	>312	NV	NL	NV
	Leaching to Groundwater		>140	NS	>6.4	>18.7	>8.26	>9.23	>4.92	NL	>3.18	>4.73	>110	>137	>0.382	15	3.5	NL	>70.9

All values in milligrams per kilogram (mg/kg)
NV - Compound not volatile - pathway isn't applicable
NL - No Level Set
>max: Risk Based Concentration is greater than 100,000 mg/kg
> values: Concentrations in excess of this value indicate free product might be present.

Appendix A – Borehole Logs

PBS
4412 SW CORBETT
PORTLAND, OREGON
97239
(503) 248-1939
FAX
(503) 248-0223

Bore Hole/Well Construction Log

Project Number:	Boring/Well Number:	Sheet
18569.000	B-1	1 of 1

Project Name: BURGARD YARD
Project Location: 9125 N. TIME OIL RD., PORTLAND, OR
Driller/Equipment: CASCADE DRILLING
Geologist/Engineer: COLIN POLK, RG
Sample Method: PUSH-PROBE

TOC Elevation (feet above datum): N/A
Surface Elevation (feet above datum): N/A
Start/End Date: 4/13/07
Hole Depth: 5'
Outer Hole Diameter: 2"

Depth (feet, BGS)	Well Construction Details	Sample Data: Interval & % Recovery	Sample Data: PID Reading (ppm)	Sample Data: Sample Number	Sample Data: Sample Interval	Lithologic Column	Soil Description
1		0-5' 90%					0-1": **ASPHALT**.
							1"-2': Damp to moist, gray, sandy **GRAVEL**.
2				B-1-2'			
							2'-2.5': Moist, reddish-brown, well sorted, sub-rounded, fine-grained **SAND** with some gravel. Clay lens at 2.5'.
3							
							2.5'-5': Wet, reddish-brown, well sorted, sub-angular to sub-rounded, fine grained **SAND**.
4							
5							**BOTTOM OF HOLE**
6							
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NOTES

1. SOIL INTERFACES AND DESCRIPTIONS ARE INTERPRETIVE AND ACTUAL CHANGES AND TRANSITIONS MAY BE GRADUAL.
2. WATER LEVEL IS FOR DATE SHOWN AND MAY VARY WITH TIME OF YEAR.
3. SOIL DESCRIPTIONS NOT INTENDED TO BE USED FOR GEOTECHNICAL DESIGN PURPOSES.

B-1

REV. ____

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PBS

4412 SW CORBETT
PORTLAND, OREGON
97239
(503) 248-1939
FAX
(503) 248-0223

Bore Hole/Well Construction Log

Project Number:	Boring/Well Number:	Sheet
18569.000	B-2	1 of 1

Project Name: BURGARD YARD
Project Location: 9125 N. TIME OIL RD., PORTLAND, OR
Driller/Equipment: CASCADE DRILLING
Geologist/Engineer: COLIN POLK, RG
Sample Method: PUSH-PROBE

TOC Elevation (feet above datum): N/A
Surface Elevation (feet above datum): N/A
Start/End Date: 4/13/07
Hole Depth: 5'
Outer Hole Diameter: 2"

Depth (feet, BGS)	Well Construction Details	Sample Data: Interval % Recovery	Sample Data: PID Reading (ppm)	Sample Data: Sample Number	Sample Data: Sample Interval	Lithologic Column	Soil Description
1		0-5' 60%					0-1': Damp to moist, gray, sandy **GRAVEL.**
2				B-2-2'			1'-2.75': Moist, reddish-brown, well sorted, sub-angular to sub-rounded, fine-grained **SAND.**
3							Wet at 2.5'.
4							2.75'-5': Wet, dark gray with some white and brown, well sorted, sub-rounded, fine-grained **SAND.**
5							**BOTTOM OF HOLE**
6							
7							
8							
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B-2

REV. ____

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PBS
4412 SW CORBETT
PORTLAND, OREGON
97239
(503) 248-1939
FAX
(503) 248-0223

Bore Hole/Well Construction Log

Project Number:	Boring/Well Number:	Sheet
18569.000	B-3	1 of 1

Project Name: BURGARD YARD
Project Location: 9125 N. TIME OIL RD., PORTLAND, OR
Driller/Equipment: CASCADE DRILLING
Geologist/Engineer: COLIN POLK, RG
Sample Method: PUSH-PROBE

TOC Elevation (feet above datum): N/A
Surface Elevation (feet above datum): N/A
Start/End Date: 4/13/07
Hole Depth: 10'
Outer Hole Diameter: 2"

Depth (feet, BGS)	Well Construction Details	Sample Data: Interval & Recovery	Sample Data: PID Reading (ppm)	Sample Data: Sample Number	Sample Data: Sample Interval	Lithologic Column	Soil Description
0		0-5' 80%					0-6": Damp, dark gray, silty, sandy **GRAVEL**.
1							6"-1.5': Damp, reddish-brown, well sorted, sub-angular to sub-rounded, fine-grained **SAND**.
2				B-3-2'			1.5'-2.25': Damp, medium gray, silty fine-grained **SAND** with a slight organic odor.
3							2.25'-9.5': Damp, medium brown with some white, well sorted sub-angular to sub-rounded, fine-grained **SAND**.
4							
5							
6		5'-10' 100%					
7				B-3-7'			Moist at 7'. Wet at 7.5'.
8							
9							Dark gray with some white and brown grains at 9.5' -10'.
10							**BOTTOM OF HOLE**
11							
12							
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B-3

REV. ____

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PBS
4412 SW CORBETT
PORTLAND, OREGON
97239
(503) 248-1939
FAX
(503) 248-0223

Bore Hole/Well Construction Log

Project Number:	Boring/Well Number:	Sheet
18569.000	B-4	1 of 1

Project Name: BURGARD YARD
Project Location: 9125 N. TIME OIL RD., PORTLAND, OR
Driller/Equipment: CASCADE DRILLING
Geologist/Engineer: COLIN POLK, RG
Sample Method: PUSH-PROBE

TOC Elevation (feet above datum): N/A
Surface Elevation (feet above datum): N/A
Start/End Date: 4/13/07
Hole Depth: 15'
Outer Hole Diameter: 2"

Depth (feet, BGS)	Well Construction Details	Sample Data: Interval & % Recovery	Sample Data: PID Reading (ppm)	Sample Data: Sample Number	Sample Data: Sample Interval	Lithologic Column	Soil Description
0		0-5' 80%					0-6": Wet, gray, silty, sandy **GRAVEL**.
1							6"-2.5': Damp, reddish-brown, well sorted, sub-rounded, fine-grained **SAND**.
2				B-4-2'			Dark gray and silty 1'-2.5'.
3							2.25'-10.25': Damp, medium brown with some white, well sorted sub-angular to sub-rounded, fine-grained **SAND**.
4							
5							
6		5'-10' 90%					
7							1" brown clay lens at 6.5'.
8							
9							Moist at 9'.
10				B-4-9.5'			1" brown clay lens at 10.25'.
11		10'-15' 90%					10.25'-15': Wet, dark gray with some white and brown, well sorted, sub-angular to sub-rounded, fine-grained **SAND**. Brown at 11'-12'.
12							Dark gray with some gravel 12'-15'.
13							
14							
15							**BOTTOM OF HOLE**
16							
17							
18							
19							
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REV. ____

B-4

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PBS
4412 SW CORBETT
PORTLAND, OREGON
97239
(503) 248-1939
FAX
(503) 248-0223

Bore Hole/Well Construction Log

Project Number:	Boring/Well Number:	Sheet
18569.000	B-5	1 of 1

Project Name: BURGARD YARD
Project Location: 9125 N. TIME OIL RD., PORTLAND, OR
Driller/Equipment: CASCADE DRILLING
Geologist/Engineer: COLIN POLK, RG
Sample Method: PUSH-PROBE

TOC Elevation (feet above datum): N/A
Surface Elevation (feet above datum): N/A
Start/End Date: 4/13/07
Hole Depth: 10'
Outer Hole Diameter: 2"

Depth (feet, BGS)	Well Construction Details	Sample Data: Interval & % Recovery	Sample Data: PID Reading (ppm)	Sample Data: Sample Number	Sample Data: Sample Interval	Lithologic Column	Soil Description
0		0-5' 90%					0-4": Damp, gray, silty, sandy **GRAVEL**.
1							4"-2': Damp, reddish-brown, well sorted, sub-rounded, fine-grained **SAND**.
2				B-5-2'			2'-6.5': Moist, dark gray, silty, fine-grained **SAND**.
3							
4							
5							
6		5'-10' 90%		B-5-6'			6.5'-7.25': Wet, gray, sandy **SILT**.
7							7.25'-10': Wet, dark gray with white, well sorted, fine-grained **SAND**.
8							Reddish-brown, silty, gravelly 9.75'-10'.
9							
10							**BOTTOM OF HOLE**
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B-5

REV. ____

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PBS
4412 SW CORBETT
PORTLAND, OREGON
97239
(503) 248-1939
FAX
(503) 248-0223

Bore Hole/Well Construction Log

Project Number:	Boring/Well Number:	Sheet
18569.000	B-6	1 of 1

Project Name: BURGARD YARD
Project Location: 9125 N. TIME OIL RD., PORTLAND, OR
Driller/Equipment: CASCADE DRILLING
Geologist/Engineer: COLIN POLK, RG
Sample Methad: PUSH-PROBE

TOC Elevation (feet above datum): N/A
Surface Elevation (feet above datum): N/A
Start/End Date: 4/13/07
Hole Depth: 10'
Outer Hole Diameter: 2"

Depth (feet, BGS)	Well Construction Details	Sample Data: Interval & Recovery	Sample Data: PID Reading (ppm)	Sample Data: Sample Number	Sample Data: Sample Interval	Lithologic Column	Soil Description
1		0-5' 60%					0-1': Damp, gray, sandy **GRAVEL**.
2				B-6-2'			1'-6.5': Damp to moist, reddish-brown, well sorted, sub-rounded, fine-grained **SAND**.
3							
4							
5							
6		5'-10' 80%					
7				B-6-7'			6.5'-7.5': Moist to wet, mottled gray and reddish-brown, silty, fine-grained **SAND**. Wet at 7.5'.
8							7.5'-10': Damp, medium brown with some white, well sorted, sub-angular to sub-rounded, fine-grained **SAND**.
9							
10							**BOTTOM OF HOLE**
11							
12							
13							
14							
15							
16							
17							
18							
19							
20							

NOTES

1. SOIL INTERFACES AND DESCRIPTIONS ARE INTERPRETIVE AND ACTUAL CHANGES AND TRANSITIONS MAY BE GRADUAL.
2. WATER LEVEL IS FOR DATE SHOWN AND MAY VARY WITH TIME OF YEAR.
3. SOIL DESCRIPTIONS NOT INTENDED TO BE USED FOR GEOTECHNICAL DESIGN PURPOSES.

B-6

REV. ____

P: 18000::18569 WinklerBurgardYard::DWG::BOREHOLE_WELL_LOG.dwg Apr 19, 2007 02:48pm johnr

PBS
4412 SW CORBETT
PORTLAND, OREGON
97239
(503) 248-1939
FAX
(503) 248-0223

Bore Hole/Well Construction Log

Project Number:	Boring/Well Number:	Sheet
18569.000	B-7	1 of 1

Project Name: BURGARD YARD
Project Location: 9125 N. TIME OIL RD., PORTLAND, OR
Driller/Equipment: CASCADE DRILLING
Geologist/Engineer: COLIN POLK, RG
Sample Method: PUSH-PROBE

TOC Elevation (feet above datum): N/A
Surface Elevation (feet above datum): N/A
Start/End Date: 4/13/07
Hole Depth: 10'
Outer Hole Diameter: 2"

Depth (feet, BGS)	Well Construction Details	Sample Data: Interval & % Recovery	Sample Data: PID Reading (ppm)	Sample Data: Sample Number	Sample Data: Sample Interval	Lithologic Column	Soil Description
1		0-5' 90%					0-1': Damp, light and dark gray, sandy **GRAVEL**.
2				B-7-2'			1'-5.5': Damp to moist, medium brown with some white, well sorted, sub-rounded, fine-grained **SAND**.
5				B-7-5'			
6		5'-10' 90%					5.5'-5.75': Wet, banded dark gray, light gray, light brown, plastic **CLAY** with wood debris.
7							5.75'-10': Wet, medium brown with some white, well sorted, sub-angular to sub-rounded, fine-grained **SAND**.
10							**BOTTOM OF HOLE**

NOTES

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B-7

REV. ____

P:\18000\18569 Winkler\BurgardYard\DWG\BOREHOLE_WELL_LOG.dwg Apr 19, 2007 02:48pm johnr

PBS
4412 SW CORBETT
PORTLAND, OREGON
97239
(503) 248-1939
FAX
(503) 248-0223

Bore Hole/Well Construction Log

Project Number:	Boring/Well Number:	Sheet
18569.000	B-8	1 of 1

Project Name: BURGARD YARD
Project Location: 9125 N. TIME OIL RD., PORTLAND, OR
Driller/Equipment: CASCADE DRILLING
Geologist/Engineer: COLIN POLK, RG
Sample Method: PUSH-PROBE

TOC Elevation (feet above datum): N/A
Surface Elevation (feet above datum): N/A
Start/End Date: 4/13/07
Hole Depth: 10'
Outer Hole Diameter: 2"

Depth (feet, BGS)	Well Construction Details	Sample Data: Interval % Recovery	Sample Data: PID Reading (ppm)	Sample Data: Sample Number	Sample Data: Sample Interval	Lithologic Column	Soil Description
1		0-5' 60%					0-3": Wet, sandy **GRAVEL**.
2				B-8-2'			3"-5.5': Moist, reddish-brown, well sorted, sub-rounded, fine-grained **SAND**.
3							
4							
5							
6							5.5'-6': Moist to wet, gray, plastic **CLAY**.
7		5'-10' 90%		B-8-6'			6'-10': Wet, medium brown with some white, well sorted, sub-angular to sub-rounded, fine-grained **SAND**.
8							
9							
10							**BOTTOM OF HOLE**
11							
12							
13							
14							
15							
16							
17							
18							
19							
20							

NOTES

1. SOIL INTERFACES AND DESCRIPTIONS ARE INTERPRETIVE AND ACTUAL CHANGES AND TRANSITIONS MAY BE GRADUAL.
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3. SOIL DESCRIPTIONS NOT INTENDED TO BE USED FOR GEOTECHNICAL DESIGN PURPOSES.

B-8

REV. ____

P:\18000\18569 WinklerBurgardYard\DWG\BOREHOLE_WELL_LOG.dwg Apr 19, 2007 02:49pm johnr

Appendix B – Laboratory Reports

TestAmerica
ANALYTICAL TESTING CORPORATION

PORTLAND, OR 9405 S.W. NIMBUS AVENUE
BEAVERTON, OR 97008-7132
ph: (503) 906.9200 fax: (503) 906.9210

April 27, 2007

Heidi Yantz
PBS Engineering
4412 SW Corbett Ave.
Portland, OR 97239

RE: Burgard Yard

Enclosed are the results of analyses for samples received by the laboratory on 04/16/07 13:37. The following list is a summary of the Work Orders contained in this report, generated on 04/27/07 10:08.

If you have any questions concerning this report, please feel free to contact me.

Work Order	Project	ProjectNumber
PQD0622	Burgard Yard	18569.000

Crystal Jones For Howard Holmes, Project Manager

TestAmerica
ANALYTICAL TESTING CORPORATION

PORTLAND, OR 9405 S.W. NIMBUS AVENUE
BEAVERTON, OR 97008-7132
ph: (503) 906.9200 fax: (503) 906.9210

PBS Engineering	Project Name:	**Burgard Yard**	
4412 SW Corbett Ave.	Project Number:	18569.000	Report Created:
Portland, OR 97239	Project Manager:	Heidi Yantz	04/27/07 10:08

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
B-1-2'	PQD0622-01	Soil	04/13/07 10:00	04/16/07 13:37
B-2-2'	PQD0622-02	Soil	04/13/07 11:10	04/16/07 13:37
B-3-2'	PQD0622-03	Soil	04/13/07 08:40	04/16/07 13:37
B-3-7'	PQD0622-04	Soil	04/13/07 08:50	04/16/07 13:37
B-4-2'	PQD0622-05	Soil	04/13/07 09:20	04/16/07 13:37
B-4-9.5'	PQD0622-06	Soil	04/13/07 09:30	04/16/07 13:37
B-5-2'	PQD0622-07	Soil	04/13/07 12:30	04/16/07 13:37
B-5-6'	PQD0622-08	Soil	04/13/07 12:40	04/16/07 13:37
B-6-2'	PQD0622-09	Soil	04/13/07 11:55	04/16/07 13:37
B-6-7'	PQD0622-10	Soil	04/13/07 12:05	04/16/07 13:37
B-7-2'	PQD0622-11	Soil	04/13/07 10:30	04/16/07 13:37
B-7-5'	PQD0622-12	Soil	04/13/07 10:40	04/16/07 13:37
B-8-2'	PQD0622-13	Soil	04/13/07 11:30	04/16/07 13:37
B-8-6'	PQD0622-14	Soil	04/13/07 11:40	04/16/07 13:37

Crystal Jones For Howard Holmes, Project Manager

TestAmerica
ANALYTICAL TESTING CORPORATION

PORTLAND, OR 9405 S.W. NIMBUS AVENUE
BEAVERTON, OR 97008-7132
ph: (503) 906.9200 fax: (503) 906.9210

PBS Engineering	Project Name:	**Burgard Yard**	
4412 SW Corbett Ave.	Project Number:	18569.000	Report Created:
Portland, OR 97239	Project Manager:	Heidi Yantz	04/27/07 10:08

Hydrocarbon Identification per NW-TPH Methodology

TestAmerica - Portland, OR

Analyte	Method	Result	MDL*	MRL	Units	Dil	Batch	Prepared	Analyzed	Notes
PQD0622-01 (B-1-2')		**Soil**			**Sampled: 04/13/07 10:00**					
Gasoline Range Hydrocarbons	NWTPH HCID	ND	----	23.2	mg/kg dry	1x	7040782	04/18/07 13:20	04/18/07 20:28	
Diesel Range Hydrocarbons	"	ND	----	58.1	"	"	"	"	"	
Heavy Oil Range Hydrocarbons	"	ND	----	116	"	"	"	"	"	
Surrogate(s): 1-Chlorooctadecane			*101%*		*50 - 150 %*	"			"	
PQD0622-02 (B-2-2')		**Soil**			**Sampled: 04/13/07 11:10**					
Gasoline Range Hydrocarbons	NWTPH HCID	ND	----	22.3	mg/kg dry	1x	7040782	04/18/07 13:20	04/18/07 21:02	
Diesel Range Hydrocarbons	"	ND	----	55.8	"	"	"	"	"	
Heavy Oil Range Hydrocarbons	"	ND	----	112	"	"	"	"	"	
Surrogate(s): 1-Chlorooctadecane			*98.1%*		*50 - 150 %*	"			"	
PQD0622-03 (B-3-2')		**Soil**			**Sampled: 04/13/07 08:40**					
Gasoline Range Hydrocarbons	NWTPH HCID	ND	----	20.4	mg/kg dry	1x	7040782	04/18/07 13:20	04/18/07 21:36	
Diesel Range Hydrocarbons	"	ND	----	51.0	"	"	"	"	"	
Heavy Oil Range Hydrocarbons	"	ND	----	102	"	"	"	"	"	
Surrogate(s): 1-Chlorooctadecane			*100%*		*50 - 150 %*	"			"	
PQD0622-04 (B-3-7')		**Soil**			**Sampled: 04/13/07 08:50**					
Gasoline Range Hydrocarbons	NWTPH HCID	ND	----	21.0	mg/kg dry	1x	7040782	04/18/07 13:20	04/18/07 22:10	
Diesel Range Hydrocarbons	"	ND	----	52.4	"	"	"	"	"	
Heavy Oil Range Hydrocarbons	"	ND	----	105	"	"	"	"	"	
Surrogate(s): 1-Chlorooctadecane			*102%*		*50 - 150 %*	"			"	
PQD0622-05 (B-4-2')		**Soil**			**Sampled: 04/13/07 09:20**					
Gasoline Range Hydrocarbons	NWTPH HCID	ND	----	18.9	mg/kg dry	1x	7040782	04/18/07 13:20	04/19/07 05:38	
Diesel Range Hydrocarbons	"	**DET**	----	47.2	"	"	"	"	"	Q10
Heavy Oil Range Hydrocarbons	"	**DET**	----	94.3	"	"	"	"	"	Q10
Surrogate(s): 1-Chlorooctadecane			*108%*		*50 - 150 %*	"			"	
PQD0622-06 (B-4-9.5')		**Soil**			**Sampled: 04/13/07 09:30**					
Gasoline Range Hydrocarbons	NWTPH HCID	ND	----	17.5	mg/kg dry	1x	7040782	04/18/07 13:20	04/18/07 22:45	
Diesel Range Hydrocarbons	"	ND	----	43.9	"	"	"	"	"	
Heavy Oil Range Hydrocarbons	"	ND	----	87.7	"	"	"	"	"	
Surrogate(s): 1-Chlorooctadecane			*104%*		*50 - 150 %*	"			"	

TestAmerica - Portland, OR

Crystal Jones For Howard Holmes, Project Manager

TestAmerica
ANALYTICAL TESTING CORPORATION

PORTLAND, OR 9405 S.W. NIMBUS AVENUE
BEAVERTON, OR 97008-7132
ph: (503) 906.9200 fax: (503) 906.9210

PBS Engineering	Project Name:	**Burgard Yard**	
4412 SW Corbett Ave.	Project Number:	18569.000	Report Created:
Portland, OR 97239	Project Manager:	Heidi Yantz	04/27/07 10:08

Hydrocarbon Identification per NW-TPH Methodology

TestAmerica - Portland, OR

Analyte	Method	Result	MDL*	MRL	Units	Dil	Batch	Prepared	Analyzed	Notes
PQD0622-07 (B-5-2')		**Soil**			**Sampled: 04/13/07 12:30**					
Gasoline Range Hydrocarbons	NWTPH HCID	ND	—	21.5	mg/kg dry	1x	7040782	04/18/07 13:20	04/19/07 05:04	
Diesel Range Hydrocarbons	"	ND	—	53.7	"	"	"	"	"	
Heavy Oil Range Hydrocarbons	"	ND	—	107	"	"	"	"	"	
Surrogate(s): 1-Chlorooctadecane		*106%*			*50 - 150 %*	"			"	
PQD0622-08 (B-5-6')		**Soil**			**Sampled: 04/13/07 12:40**					
Gasoline Range Hydrocarbons	NWTPH HCID	ND	—	22.0	mg/kg dry	1x	7040782	04/18/07 13:20	04/18/07 23:18	
Diesel Range Hydrocarbons	"	ND	—	54.9	"	"	"	"	"	
Heavy Oil Range Hydrocarbons	"	ND	—	110	"	"	"	"	"	
Surrogate(s): 1-Chlorooctadecane		*99.0%*			*50 - 150 %*	"			"	
PQD0622-09 (B-6-2')		**Soil**			**Sampled: 04/13/07 11:55**					
Gasoline Range Hydrocarbons	NWTPH HCID	ND	—	21.8	mg/kg dry	1x	7040782	04/18/07 13:20	04/18/07 23:53	
Diesel Range Hydrocarbons	"	ND	—	54.5	"	"	"	"	"	
Heavy Oil Range Hydrocarbons	"	ND	—	109	"	"	"	"	"	
Surrogate(s): 1-Chlorooctadecane		*99.0%*			*50 - 150 %*	"			"	
PQD0622-10 (B-6-7')		**Soil**			**Sampled: 04/13/07 12:05**					
Gasoline Range Hydrocarbons	NWTPH HCID	ND	—	22.2	mg/kg dry	1x	7040782	04/18/07 13:20	04/19/07 00:27	
Diesel Range Hydrocarbons	"	ND	—	55.6	"	"	"	"	"	
Heavy Oil Range Hydrocarbons	"	ND	—	111	"	"	"	"	"	
Surrogate(s): 1-Chlorooctadecane		*100%*			*50 - 150 %*	"			"	
PQD0622-11 (B-7-2')		**Soil**			**Sampled: 04/13/07 10:30**					
Gasoline Range Hydrocarbons	NWTPH HCID	ND	—	19.4	mg/kg dry	1x	7040782	04/18/07 13:20	04/19/07 02:11	
Diesel Range Hydrocarbons	"	ND	—	48.6	"	"	"	"	"	
Heavy Oil Range Hydrocarbons	"	ND	—	97.1	"	"	"	"	"	
Surrogate(s): 1-Chlorooctadecane		*106%*			*50 - 150 %*	"			"	
PQD0622-12 (B-7-5')		**Soil**			**Sampled: 04/13/07 10:40**					
Gasoline Range Hydrocarbons	NWTPH HCID	ND	—	25.3	mg/kg dry	1x	7040782	04/18/07 13:20	04/19/07 02:45	
Diesel Range Hydrocarbons	"	ND	—	63.2	"	"	"	"	"	
Heavy Oil Range Hydrocarbons	"	ND	—	126	"	"	"	"	"	
Surrogate(s): 1-Chlorooctadecane		*107%*			*50 - 150 %*	"			"	

TestAmerica - Portland, OR

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report shall not be reproduced except in full, without the written approval of the laboratory.

Crystal Jones For Howard Holmes, Project Manager

TestAmerica
ANALYTICAL TESTING CORPORATION

PORTLAND, OR 9405 S.W. NIMBUS AVENUE
BEAVERTON, OR 97008-7132
ph: (503) 906.9200 fax: (503) 906.9210

PBS Engineering	Project Name:	**Burgard Yard**	
4412 SW Corbett Ave.	Project Number:	18569.000	Report Created:
Portland, OR 97239	Project Manager:	Heidi Yantz	04/27/07 10:08

Hydrocarbon Identification per NW-TPH Methodology

TestAmerica - Portland, OR

Analyte	Method	Result	MDL*	MRL	Units	Dil	Batch	Prepared	Analyzed	Notes
PQD0622-13 (B-8-2')		**Soil**				**Sampled: 04/13/07 11:30**				
Gasoline Range Hydrocarbons	NWTPH HCID	ND	—	18.6	mg/kg dry	1x	7040782	04/18/07 13:20	04/19/07 03:20	
Diesel Range Hydrocarbons	"	ND	—	46.4	"	"	"	"	"	
Heavy Oil Range Hydrocarbons	"	ND	—	92.9	"	"	"	"	"	
Surrogate(s): 1-Chlorooctadecane			*110%*		*50 - 150 %*	"			"	
PQD0622-14 (B-8-6')		**Soil**				**Sampled: 04/13/07 11:40**				
Gasoline Range Hydrocarbons	NWTPH HCID	ND	—	23.1	mg/kg dry	1x	7040782	04/18/07 13:20	04/19/07 03:55	
Diesel Range Hydrocarbons	"	ND	—	57.8	"	"	"	"	"	
Heavy Oil Range Hydrocarbons	"	ND	—	116	"	"	"	"	"	
Surrogate(s): 1-Chlorooctadecane			*101%*		*50 - 150 %*	"			"	

Crystal Jones For Howard Holmes, Project Manager

TestAmerica
ANALYTICAL TESTING CORPORATION

PORTLAND, OR 9405 S.W. NIMBUS AVENUE
BEAVERTON, OR 97008-7132
ph: (503) 906.9200 fax: (503) 906.9210

PBS Engineering	Project Name:	**Burgard Yard**	
4412 SW Corbett Ave.	Project Number:	18569.000	Report Created:
Portland, OR 97239	Project Manager:	Heidi Yantz	04/27/07 10:08

Diesel and Heavy Range Hydrocarbons per NWTPH-Dx Method with Acid/Silica Gel Cleanup

TestAmerica - Portland, OR

Analyte	Method	Result	MDL*	MRL	Units	Dil	Batch	Prepared	Analyzed	Notes
PQD0622-05 (B-4-2')		**Soil**			**Sampled: 04/13/07 09:20**					
Diesel Range Organics	NWTPH-Dx	**132**	----	13.8	mg/kg dry	1x	7041062	04/24/07 15:45	04/25/07 09:09	Q9
Heavy Oil Range Hydrocarbons	"	**236**	----	27.6	"	"	"	"	"	Q9
Surrogate(s): 1-Chlorooctadecane			*120%*		*50 - 150 %*	"			"	

Crystal Jones For Howard Holmes, Project Manager

TestAmerica
ANALYTICAL TESTING CORPORATION

PORTLAND, OR 9405 S.W. NIMBUS AVENUE
BEAVERTON, OR 97008-7132
ph: (503) 906.9200 fax: (503) 906.9210

PBS Engineering	Project Name:	**Burgard Yard**	
4412 SW Corbett Ave.	Project Number:	18569.000	Report Created:
Portland, OR 97239	Project Manager:	Heidi Yantz	04/27/07 10:08

Polychlorinated Biphenyls per EPA Method 8082

TestAmerica - Portland, OR

Analyte	Method	Result	MDL*	MRL	Units	Dil	Batch	Prepared	Analyzed	Notes
PQD0622-01 (B-1-2')		**Soil**			**Sampled: 04/13/07 10:00**					
Aroclor 1016	EPA 8082	ND	—	39.4	ug/kg dry	1x	7040808	04/19/07 11:30	04/19/07 18:20	
Aroclor 1221	"	ND	—	79.2	"	"	"	"	"	
Aroclor 1232	"	ND	—	39.4	"	"	"	"	"	
Aroclor 1242	"	ND	—	39.4	"	"	"	"	"	
Aroclor 1248	"	ND	—	39.4	"	"	"	"	"	
Aroclor 1254	"	ND	—	39.4	"	"	"	"	"	
Aroclor 1260	"	ND	—	39.4	"	"	"	"	"	
Surrogate(s): Decachlorobiphenyl		*84.3%*			*16 - 149 %*	"			"	
PQD0622-02 (B-2-2')		**Soil**			**Sampled: 04/13/07 11:10**					
Aroclor 1016	EPA 8082	ND	—	38.5	ug/kg dry	1x	7040808	04/19/07 11:30	04/19/07 18:40	
Aroclor 1221	"	ND	—	77.4	"	"	"	"	"	
Aroclor 1232	"	ND	—	38.5	"	"	"	"	"	
Aroclor 1242	"	ND	—	38.5	"	"	"	"	"	
Aroclor 1248	"	ND	—	38.5	"	"	"	"	"	
Aroclor 1254	"	ND	—	38.5	"	"	"	"	"	
Aroclor 1260	"	ND	—	38.5	"	"	"	"	"	
Surrogate(s): Decachlorobiphenyl		*80.5%*			*16 - 149 %*	"			"	
PQD0622-03 (B-3-2')		**Soil**			**Sampled: 04/13/07 08:40**					
Aroclor 1016	EPA 8082	ND	—	37.8	ug/kg dry	1x	7040808	04/19/07 11:30	04/20/07 15:37	
Aroclor 1221	"	ND	—	76.1	"	"	"	"	"	
Aroclor 1232	"	ND	—	37.8	"	"	"	"	"	
Aroclor 1242	"	ND	—	37.8	"	"	"	"	"	
Aroclor 1248	"	ND	—	37.8	"	"	"	"	"	
Aroclor 1254	"	ND	—	37.8	"	"	"	"	"	
Aroclor 1260	"	ND	—	37.8	"	"	"	"	"	
Surrogate(s): Decachlorobiphenyl		*68.3%*			*16 - 149 %*	"			"	
PQD0622-04 (B-3-7')		**Soil**			**Sampled: 04/13/07 08:50**					
Aroclor 1016	EPA 8082	ND	—	38.2	ug/kg dry	1x	7040808	04/19/07 11:30	04/19/07 18:59	
Aroclor 1221	"	ND	—	76.8	"	"	"	"	"	
Aroclor 1232	"	ND	—	38.2	"	"	"	"	"	
Aroclor 1242	"	ND	—	38.2	"	"	"	"	"	
Aroclor 1248	"	ND	—	38.2	"	"	"	"	"	
Aroclor 1254	"	ND	—	38.2	"	"	"	"	"	
Aroclor 1260	"	ND	—	38.2	"	"	"	"	"	
Surrogate(s): Decachlorobiphenyl		*93.2%*			*16 - 149 %*	"			"	

TestAmerica - Portland, OR

Crystal Jones For Howard Holmes, Project Manager

TestAmerica
ANALYTICAL TESTING CORPORATION

PORTLAND, OR 9405 S.W. NIMBUS AVENUE
BEAVERTON, OR 97008-7132
ph: (503) 906.9200 fax: (503) 906.9210

PBS Engineering	Project Name:	**Burgard Yard**	
4412 SW Corbett Ave.	Project Number:	18569.000	Report Created:
Portland, OR 97239	Project Manager:	Heidi Yantz	04/27/07 10:08

Polychlorinated Biphenyls per EPA Method 8082

TestAmerica - Portland, OR

Analyte	Method	Result	MDL[A]	MRL	Units	Dil	Batch	Prepared	Analyzed	Notes
PQD0622-05 (B-4-2')		**Soil**			**Sampled: 04/13/07 09:20**					**RL3**
Aroclor 1016	EPA 8082	ND	——	259	ug/kg dry	7x	7040808	04/19/07 11:30	04/20/07 16:34	
Aroclor 1221	"	ND	——	521	"	"	"	"	"	
Aroclor 1232	"	ND	——	259	"	"	"	"	"	
Aroclor 1242	"	ND	——	259	"	"	"	"	"	
Aroclor 1248	"	ND	——	259	"	"	"	"	"	
Aroclor 1254	"	**1130**	——	259	"	"	"	"	"	
Aroclor 1260	"	**569**	——	259	"	"	"	"	"	
Surrogate(s): Decachlorobiphenyl		*70.8%*			*16 - 149 %*	"			"	
PQD0622-06 (B-4-9.5')		**Soil**			**Sampled: 04/13/07 09:30**					
Aroclor 1016	EPA 8082	ND	——	36.1	ug/kg dry	1x	7040808	04/19/07 11:30	04/19/07 19:19	
Aroclor 1221	"	ND	——	72.6	"	"	"	"	"	
Aroclor 1232	"	ND	——	36.1	"	"	"	"	"	
Aroclor 1242	"	ND	——	36.1	"	"	"	"	"	
Aroclor 1248	"	ND	——	36.1	"	"	"	"	"	
Aroclor 1254	"	ND	——	36.1	"	"	"	"	"	
Aroclor 1260	"	ND	——	36.1	"	"	"	"	"	
Surrogate(s): Decachlorobiphenyl		*89.8%*			*16 - 149 %*	"			"	
PQD0622-07 (B-5-2')		**Soil**			**Sampled: 04/13/07 12:30**					
Aroclor 1016	EPA 8082	ND	——	38.5	ug/kg dry	1x	7040808	04/19/07 11:30	04/20/07 17:11	
Aroclor 1221	"	ND	——	77.5	"	"	"	"	"	
Aroclor 1232	"	ND	——	38.5	"	"	"	"	"	
Aroclor 1242	"	ND	——	38.5	"	"	"	"	"	
Aroclor 1248	"	ND	——	38.5	"	"	"	"	"	
Aroclor 1254	"	**244**	——	38.5	"	"	"	"	"	
Aroclor 1260	"	**153**	——	38.5	"	"	"	"	"	
Surrogate(s): Decachlorobiphenyl		*59.7%*			*16 - 149 %*	"			"	
PQD0622-08 (B-5-6')		**Soil**			**Sampled: 04/13/07 12:40**					
Aroclor 1016	EPA 8082	ND	——	47.7	ug/kg dry	1x	7040808	04/19/07 11:30	04/20/07 17:30	
Aroclor 1221	"	ND	——	95.9	"	"	"	"	"	
Aroclor 1232	"	ND	——	47.7	"	"	"	"	"	
Aroclor 1242	"	ND	——	47.7	"	"	"	"	"	
Aroclor 1248	"	ND	——	47.7	"	"	"	"	"	
Aroclor 1254	"	ND	——	47.7	"	"	"	"	"	
Aroclor 1260	"	ND	——	47.7	"	"	"	"	"	
Surrogate(s): Decachlorobiphenyl		*65.8%*			*16 - 149 %*	"			"	

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Crystal Jones For Howard Holmes, Project Manager

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BEAVERTON, OR 97008-7132
ph: (503) 906.9200 fax: (503) 906.9210

PBS Engineering	Project Name:	**Burgard Yard**	
4412 SW Corbett Ave.	Project Number:	18569.000	Report Created:
Portland, OR 97239	Project Manager:	Heidi Yantz	04/27/07 10:08

Polychlorinated Biphenyls per EPA Method 8082

TestAmerica - Portland, OR

Analyte	Method	Result	MDL*	MRL	Units	Dil	Batch	Prepared	Analyzed	Notes
PQD0622-09 (B-6-2')		**Soil**			**Sampled: 04/13/07 11:55**					
Aroclor 1016	EPA 8082	ND	----	37.4	ug/kg dry	1x	7040808	04/19/07 11:30	04/20/07 16:15	
Aroclor 1221	"	ND	----	75.3	"	"	"	"	"	
Aroclor 1232	"	ND	----	37.4	"	"	"	"	"	
Aroclor 1242	"	ND	----	37.4	"	"	"	"	"	
Aroclor 1248	"	ND	----	37.4	"	"	"	"	"	
Aroclor 1254	"	ND	----	37.4	"	"	"	"	"	
Aroclor 1260	"	ND	----	37.4	"	"	"	"	"	
Surrogate(s): Decachlorobiphenyl		*85.9%*			*16 - 149 %*	"			"	
PQD0622-10 (B-6-7')		**Soil**			**Sampled: 04/13/07 12:05**					
Aroclor 1016	EPA 8082	ND	----	39.7	ug/kg dry	1x	7040808	04/19/07 11:30	04/20/07 15:56	
Aroclor 1221	"	ND	----	80.0	"	"	"	"	"	
Aroclor 1232	"	ND	----	39.7	"	"	"	"	"	
Aroclor 1242	"	ND	----	39.7	"	"	"	"	"	
Aroclor 1248	"	ND	----	39.7	"	"	"	"	"	
Aroclor 1254	"	ND	----	39.7	"	"	"	"	"	
Aroclor 1260	"	ND	----	39.7	"	"	"	"	"	
Surrogate(s): Decachlorobiphenyl		*83.9%*			*16 - 149 %*	"			"	
PQD0622-11 (B-7-2')		**Soil**			**Sampled: 04/13/07 10:30**					
Aroclor 1016	EPA 8082	ND	----	35.5	ug/kg dry	1x	7040808	04/19/07 11:30	04/20/07 19:51	
Aroclor 1221	"	ND	----	71.4	"	"	"	"	"	
Aroclor 1232	"	ND	----	35.5	"	"	"	"	"	
Aroclor 1242	"	ND	----	35.5	"	"	"	"	"	
Aroclor 1248	"	ND	----	35.5	"	"	"	"	"	
Aroclor 1254	"	ND	----	35.5	"	"	"	"	"	
Aroclor 1260	"	ND	----	35.5	"	"	"	"	"	
Surrogate(s): Decachlorobiphenyl		*99.2%*			*16 - 149 %*	"			"	
PQD0622-12 (B-7-5')		**Soil**			**Sampled: 04/13/07 10:40**					
Aroclor 1016	EPA 8082	ND	----	44.8	ug/kg dry	1x	7040808	04/19/07 11:30	04/20/07 20:09	
Aroclor 1221	"	ND	----	90.2	"	"	"	"	"	
Aroclor 1232	"	ND	----	44.8	"	"	"	"	"	
Aroclor 1242	"	ND	----	44.8	"	"	"	"	"	
Aroclor 1248	"	ND	----	44.8	"	"	"	"	"	
Aroclor 1254	"	ND	----	44.8	"	"	"	"	"	
Aroclor 1260	"	ND	----	44.8	"	"	"	"	"	
Surrogate(s): Decachlorobiphenyl		*89.1%*			*16 - 149 %*	"			"	

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PBS Engineering	Project Name:	**Burgard Yard**	
4412 SW Corbett Ave.	Project Number:	18569.000	Report Created:
Portland, OR 97239	Project Manager:	Heidi Yantz	04/27/07 10:08

Polychlorinated Biphenyls per EPA Method 8082

TestAmerica - Portland, OR

Analyte	Method	Result	MDL*	MRL	Units	Dil	Batch	Prepared	Analyzed	Notes
PQD0622-13 (B-8-2')		**Soil**			**Sampled: 04/13/07 11:30**					
Aroclor 1016	EPA 8082	ND	----	37.0	ug/kg dry	1x	7040808	04/19/07 11:30	04/20/07 16:52	
Aroclor 1221	"	ND	----	74.3	"	"	"	"	"	
Aroclor 1232	"	ND	----	37.0	"	"	"	"	"	
Aroclor 1242	"	ND	----	37.0	"	"	"	"	"	
Aroclor 1248	"	ND	----	37.0	"	"	"	"	"	
Aroclor 1254	"	ND	----	37.0	"	"	"	"	"	
Aroclor 1260	"	ND	----	37.0	"	"	"	"	"	
Surrogate(s): Decachlorobiphenyl			*87.8%*		*16 - 149 %*	"			"	
PQD0622-14 (B-8-6')		**Soil**			**Sampled: 04/13/07 11:40**					
Aroclor 1016	EPA 8082	ND	----	42.3	ug/kg dry	1x	7040808	04/19/07 11:30	04/20/07 19:32	
Aroclor 1221	"	ND	----	85.0	"	"	"	"	"	
Aroclor 1232	"	ND	----	42.3	"	"	"	"	"	
Aroclor 1242	"	ND	----	42.3	"	"	"	"	"	
Aroclor 1248	"	ND	----	42.3	"	"	"	"	"	
Aroclor 1254	"	ND	----	42.3	"	"	"	"	"	
Aroclor 1260	"	ND	----	42.3	"	"	"	"	"	
Surrogate(s): Decachlorobiphenyl			*59.6%*		*16 - 149 %*	"			"	

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4412 SW Corbett Ave.	Project Number:	18569.000	Report Created:
Portland, OR 97239	Project Manager:	Heidi Yantz	04/27/07 10:08

Polynuclear Aromatic Compounds and Pentachlorphenol per EPA 8270M-SIM

TestAmerica - Portland, OR

Analyte	Method	Result	MDL*	MRL	Units	Dil	Batch	Prepared	Analyzed	Notes
PQD0622-05 (B-4-2')		**Soil**			**Sampled: 04/13/07 09:20**					**RL3**
Acenaphthene	EPA 8270m	ND	—	148	ug/kg dry	10x	7040999	04/23/07 16:00	04/24/07 21:23	
Acenaphthylene	"	**167**	—	148	"	"	"	"	"	
Anthracene	"	**19700**	—	1480	"	100x	"	"	04/25/07 03:15	
Benzo (a) anthracene	"	**772**	—	148	"	10x	"	"	04/24/07 21:23	
Benzo (a) pyrene	"	**1080**	—	148	"	"	"	"	"	
Benzo (b) fluoranthene	"	**1310**	—	148	"	"	"	"	"	
Benzo (k) fluoranthene	"	**757**	—	148	"	"	"	"	"	
Benzo (ghi) perylene	"	**1310**	—	148	"	"	"	"	"	
Chrysene	"	**1800**	—	148	"	"	"	"	"	
Dibenzo (a,h) anthracene	"	**246**	—	148	"	"	"	"	"	
Fluoranthene	"	**1520**	—	148	"	"	"	"	"	
Fluorene	"	**997**	—	148	"	"	"	"	"	
Indeno (1,2,3-cd) pyrene	"	**912**	—	148	"	"	"	"	"	
Naphthalene	"	ND	—	148	"	"	"	"	"	
Pentachlorophenol	"	ND	—	741	"	"	"	"	"	
Phenanthrene	"	**2410**	—	148	"	"	"	"	"	
Pyrene	"	**2030**	—	148	"	"	"	"	"	
Surrogate(s): Fluorene-d10			*83.2%*		*24 - 125 %*	"			"	
2,4,6-Tribromophenol			*66.1%*		*7 - 163 %*	"			"	Z3
Pyrene-d10			*94.7%*		*41 - 141 %*	"			"	
Benzo (a) pyrene-d12			*90.4%*		*38 - 143 %*	"			"	

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4412 SW Corbett Ave.	Project Number: 18569.000	Report Created:
Portland, OR 97239	Project Manager: Heidi Yantz	04/27/07 10:08

Percent Dry Weight (Solids) per Standard Methods

TestAmerica - Portland, OR

Analyte	Method	Result	MDL*	MRL	Units	Dil	Batch	Prepared	Analyzed	Notes
PQD0622-01 (B-1-2')		**Soil**			**Sampled: 04/13/07 10:00**					
% Solids	NCA SOP	84.3	—	0.00	% by Weight	1x	7040697	04/17/07 08:25	04/17/07 08:25	
PQD0622-02 (B-2-2')		**Soil**			**Sampled: 04/13/07 11:10**					
% Solids	NCA SOP	86.1	—	0.00	% by Weight	1x	7040697	04/17/07 08:25	04/17/07 08:25	
PQD0622-03 (B-3-2')		**Soil**			**Sampled: 04/13/07 08:40**					
% Solids	NCA SOP	87.6	—	0.00	% by Weight	1x	7040697	04/17/07 08:25	04/17/07 08:25	
PQD0622-04 (B-3-7')		**Soil**			**Sampled: 04/13/07 08:50**					
% Solids	NCA SOP	86.6	—	0.00	% by Weight	1x	7040697	04/17/07 08:25	04/17/07 08:25	
PQD0622-05 (B-4-2')		**Soil**			**Sampled: 04/13/07 09:20**					
% Solids	NCA SOP	89.7	—	0.00	% by Weight	1x	7040697	04/17/07 08:25	04/17/07 08:25	
PQD0622-06 (B-4-9.5')		**Soil**			**Sampled: 04/13/07 09:30**					
% Solids	NCA SOP	91.8	—	0.00	% by Weight	1x	7040697	04/17/07 08:25	04/17/07 08:25	
PQD0622-07 (B-5-2')		**Soil**			**Sampled: 04/13/07 12:30**					
% Solids	NCA SOP	85.9	—	0.00	% by Weight	1x	7040697	04/17/07 08:25	04/17/07 08:25	
PQD0622-08 (B-5-6')		**Soil**			**Sampled: 04/13/07 12:40**					
% Solids	NCA SOP	69.7	—	0.00	% by Weight	1x	7040697	04/17/07 08:25	04/17/07 08:25	
PQD0622-09 (B-6-2')		**Soil**			**Sampled: 04/13/07 11:55**					
% Solids	NCA SOP	88.2	—	0.00	% by Weight	1x	7040697	04/17/07 08:25	04/17/07 08:25	
PQD0622-10 (B-6-7')		**Soil**			**Sampled: 04/13/07 12:05**					
% Solids	NCA SOP	83.1	—	0.00	% by Weight	1x	7040697	04/17/07 08:25	04/17/07 08:25	
PQD0622-11 (B-7-2')		**Soil**			**Sampled: 04/13/07 10:30**					

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PBS Engineering	Project Name:	**Burgard Yard**	
4412 SW Corbett Ave.	Project Number:	18569.000	Report Created:
Portland, OR 97239	Project Manager:	Heidi Yantz	04/27/07 10:08

Percent Dry Weight (Solids) per Standard Methods

TestAmerica - Portland, OR

Analyte	Method	Result	MDL*	MRL	Units	Dil	Batch	Prepared	Analyzed	Notes
PQD0622-11 (B-7-2')		**Soil**			**Sampled: 04/13/07 10:30**					
% Solids	NCA SOP	**92.6**	—	0.00	% by Weight	1x	7040697	04/17/07 08:25	04/17/07 08:25	
PQD0622-12 (B-7-5')		**Soil**			**Sampled: 04/13/07 10:40**					
% Solids	NCA SOP	**73.9**	—	0.00	% by Weight	1x	7040697	04/17/07 08:25	04/17/07 08:25	
PQD0622-13 (B-8-2')		**Soil**			**Sampled: 04/13/07 11:30**					
% Solids	NCA SOP	**89.2**	—	0.00	% by Weight	1x	7040697	04/17/07 08:25	04/17/07 08:25	
PQD0622-14 (B-8-6')		**Soil**			**Sampled: 04/13/07 11:40**					
% Solids	NCA SOP	**78.0**	—	0.00	% by Weight	1x	7040698	04/17/07 08:26	04/17/07 08:26	

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4412 SW Corbett Ave.	Project Number:	18569.000	Report Created:
Portland, OR 97239	Project Manager:	Heidi Yantz	04/27/07 10:08

Hydrocarbon Identification per NW-TPH Methodology - Laboratory Quality Control Results

TestAmerica - Portland, OR

QC Batch: 7040782 **Soil Preparation Method: EPA 3550 Fuels**

Analyte	Method	Result	MDL*	MRL	Units	Dil	Source Result	Spike Amt	% REC	(Limits)	% RPD	(Limits)	Analyzed	Notes
Blank (7040782-BLK1)								Extracted: 04/18/07 13:20						
Gasoline Range Hydrocarbons	NWTPH HCID	ND	---	20.0	mg/kg wet	1x	--	--	--	--	--	--	04/18/07 16:29	
Diesel Range Hydrocarbons	"	ND	---	50.0	"	"	--	--	--	--	--	--	"	
Heavy Oil Range Hydrocarbons	"	ND	---	100	"	"	--	--	--	--	--	--	"	
Surrogate(s): 1-Chlorooctadecane		*Recovery: 101%*			*Limits: 50-150%*	"							*04/18/07 16:29*	
Duplicate (7040782-DUP1)					QC Source: PQD0621-01			Extracted: 04/18/07 13:20						
Gasoline Range Hydrocarbons	NWTPH HCID	ND	---	23.7	mg/kg dry	1x	ND	--	--	--	NR	(50)	04/18/07 17:03	
Diesel Range Hydrocarbons	"	ND	---	59.4	"	"	ND	--	--	--	--	"	"	
Heavy Oil Range Hydrocarbons	"	ND	---	119	"	"	ND	--	--	--	NR	"	"	
Surrogate(s): 1-Chlorooctadecane		*Recovery: 103%*			*Limits: 50-150%*	"							*04/18/07 17:03*	
Duplicate (7040782-DUP2)					QC Source: PQD0622-01			Extracted: 04/18/07 13:20						
Gasoline Range Hydrocarbons	NWTPH HCID	ND	---	21.0	mg/kg dry	1x	ND	--	--	--	NR	(50)	04/18/07 19:53	
Diesel Range Hydrocarbons	"	ND	---	52.6	"	"	ND	--	--	--	NR	"	"	
Heavy Oil Range Hydrocarbons	"	ND	---	105	"	"	ND	--	--	--	NR	"	"	
Surrogate(s): 1-Chlorooctadecane		*Recovery: 99.0%*			*Limits: 50-150%*	"							*04/18/07 19:53*	

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Portland, OR 97239	Project Manager:	Heidi Yantz	04/27/07 10:08

Diesel and Heavy Range Hydrocarbons per NWTPH-Dx Method with Acid/Silica Gel Cleanup - Laboratory Quality Control Results

TestAmerica - Portland, OR

QC Batch: 7041062 **Soil Preparation Method: EPA 3550 Fuels**

Analyte	Method	Result	MDL*	MRL	Units	Dil	Source Result	Spike Amt	% REC	(Limits)	% RPD	(Limits)	Analyzed	Notes
Blank (7041062-BLK1)							Extracted: 04/24/07 15:45							
Diesel Range Organics	NWTPH-Dx	ND	---	12.5	mg/kg wet	1x	--	--	--	--	--	--	04/25/07 07:34	
Heavy Oil Range Hydrocarbons	"	ND	---	25.0	"	"	--	--	--	--	--	--	"	
Surrogate(s): 1-Chlorooctadecane		*Recovery: 103%*			*Limits: 50-150%*	"							*04/25/07 07:34*	
LCS (7041062-BS1)							Extracted: 04/24/07 15:45							
Diesel Range Organics	NWTPH-Dx	125	---	12.5	mg/kg wet	1x	--	127	98.4%	(50-150)	--	--	04/25/07 08:06	
Heavy Oil Range Hydrocarbons	"	89.0	---	25.0	"	"	--	78.8	113%	"	--	--	"	
Surrogate(s): 1-Chlorooctadecane		*Recovery: 117%*			*Limits: 50-150%*	"							*04/25/07 08:06*	
Duplicate (7041062-DUP1)					QC Source: PQD0622-05		Extracted: 04/24/07 15:45							
Diesel Range Organics	NWTPH-Dx	52.9	---	13.9	mg/kg dry	1x	132	--	--	--	85.6%	(50)	04/25/07 08:38	R3, Q9
Heavy Oil Range Hydrocarbons	"	142	---	27.7	"	"	236	--	--	--	49.7%	"	"	Q9
Surrogate(s): 1-Chlorooctadecane		*Recovery: 103%*			*Limits: 50-150%*	"							*04/25/07 08:38*	

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4412 SW Corbett Ave.	Project Number:	18569.000	Report Created:
Portland, OR 97239	Project Manager:	Heidi Yantz	04/27/07 10:08

Polychlorinated Biphenyls per EPA Method 8082 - Laboratory Quality Control Results

TestAmerica - Portland, OR

QC Batch: 7040808 **Soil Preparation Method: EPA 3550**

Analyte	Method	Result	MDL*	MRL	Units	Dil	Source Result	Spike Amt	% REC	(Limits)	% RPD	(Limits)	Analyzed	Notes
Blank (7040808-BLK1)								Extracted: 04/19/07 11:30						
Aroclor 1016	EPA 8082	ND	---	33.0	ug/kg wet	1x	--	--	--	--	--	--	04/20/07 20:28	
Aroclor 1221	"	ND	---	66.3	"	"	--	--	--	--	--	--	"	
Aroclor 1232	"	ND	---	33.0	"	"	--	--	--	--	--	--	"	
Aroclor 1242	"	ND	---	33.0	"	"	--	--	--	--	--	--	"	
Aroclor 1248	"	ND	---	33.0	"	"	--	--	--	--	--	--	"	
Aroclor 1254	"	ND	---	33.0	"	"	--	--	--	--	--	--	"	
Aroclor 1260	"	ND	---	33.0	"	"	--	--	--	--	--	--	"	
Surrogate(s): Decachlorobiphenyl		*Recovery: 98.5%*			*Limits: 16-149%*	"							*04/20/07 20:28*	
LCS (7040808-BS1)								Extracted: 04/19/07 11:30						
Aroclor 1016	EPA 8082	363	---	33.0	ug/kg wet	1x	--	330	110%	(57-135)	--	--	04/20/07 20:47	
Aroclor 1260	"	366	---	33.0	"	"	--	"	111%	(60-135)	--	--	"	
Surrogate(s): Decachlorobiphenyl		*Recovery: 100%*			*Limits: 16-149%*	"							*04/20/07 20:47*	
Matrix Spike (7040808-MS1)						QC Source: PQD0622-01		Extracted: 04/19/07 11:30						
Aroclor 1016	EPA 8082	397	---	39.0	ug/kg dry	1x	ND	391	102%	(37-145)	--	--	04/20/07 17:49	
Aroclor 1260	"	369	---	39.0	"	"	ND	"	94.4%	(25-144)	--	--	"	
Surrogate(s): Decachlorobiphenyl		*Recovery: 79.8%*			*Limits: 16-149%*	"							*04/20/07 17:49*	
Matrix Spike Dup (7040808-MSD1)						QC Source: PQD0622-01		Extracted: 04/19/07 11:30						
Aroclor 1016	EPA 8082	403	---	39.3	ug/kg dry	1x	ND	394	102%	(37-145)	1.50%	(26)	04/20/07 18:08	
Aroclor 1260	"	389	---	39.3	"	"	ND	"	98.7%	(25-144)	5.28%	(30)	"	
Surrogate(s): Decachlorobiphenyl		*Recovery: 83.8%*			*Limits: 16-149%*	"							*04/20/07 18:08*	

Crystal Jones For Howard Holmes, Project Manager

TestAmerica
ANALYTICAL TESTING CORPORATION

PORTLAND, OR 9405 S.W. NIMBUS AVENUE
BEAVERTON, OR 97008-7132
ph: (503) 906.9200 fax: (503) 906.9210

PBS Engineering	Project Name:	**Burgard Yard**	
4412 SW Corbett Ave.	Project Number:	18569.000	Report Created:
Portland, OR 97239	Project Manager:	Heidi Yantz	04/27/07 10:08

Polynuclear Aromatic Compounds and Pentachlorphenol per EPA 8270M-SIM - Laboratory Quality Control Results

TestAmerica - Portland, OR

QC Batch: 7040999 **Soil Preparation Method: EPA 3550**

Analyte	Method	Result	MDL*	MRL	Units	Dil	Source Result	Spike Amt	% REC	(Limits)	% RPD	(Limits)	Analyzed	Notes
Blank (7040999-BLK1)							Extracted: 04/23/07 16:00							
Acenaphthene	EPA 8270m	ND	---	13.4	ug/kg wet	1x	--	--	--	--	--	--	04/24/07 20:02	
Acenaphthylene	"	ND	---	13.4	"	"	--	--	--	--	--	--	"	
Anthracene	"	ND	---	13.4	"	"	--	--	--	--	--	--	"	
Benzo (a) anthracene	"	ND	---	13.4	"	"	--	--	--	--	--	--	"	
Benzo (a) pyrene	"	ND	---	13.4	"	"	--	--	--	--	--	--	"	
Benzo (b) fluoranthene	"	ND	---	13.4	"	"	--	--	--	--	--	--	"	
Benzo (k) fluoranthene	"	ND	---	13.4	"	"	--	--	--	--	--	--	"	
Benzo (ghi) perylene	"	ND	---	13.4	"	"	--	--	--	--	--	--	"	
Chrysene	"	ND	---	13.4	"	"	--	--	--	--	--	--	"	
Dibenzo (a,h) anthracene	"	ND	---	13.4	"	"	--	--	--	--	--	--	"	
Fluoranthene	"	ND	---	13.4	"	"	--	--	--	--	--	--	"	
Fluorene	"	ND	---	13.4	"	"	--	--	--	--	--	--	"	
Indeno (1,2,3-cd) pyrene	"	ND	---	13.4	"	"	--	--	--	--	--	--	"	
Naphthalene	"	ND	---	13.4	"	"	--	--	--	--	--	--	"	
Pentachlorophenol	"	ND	---	66.9	"	"	--	--	--	--	--	--	"	
Phenanthrene	"	ND	---	13.4	"	"	--	--	--	--	--	--	"	
Pyrene	"	ND	---	13.4	"	"	--	--	--	--	--	--	"	
Surrogate(s): *Fluorene-d10*		*Recovery:* *70.1%*			*Limits:* *24-125%*	"							*04/24/07 20:02*	
2,4,6-Tribromophenol		*51.9%*			*7-163%*	"							"	
Pyrene-d10		*96.3%*			*41-141%*	"							"	
Benzo (a) pyrene-d12		*90.0%*			*38-143%*	"							"	
LCS (7040999-BS1)							Extracted: 04/23/07 16:00							
Acenaphthene	EPA 8270m	147	---	13.3	ug/kg wet	1x	--	166	88.6%	(33-139)	--	--	04/24/07 20:29	
Benzo (a) pyrene	"	158	---	13.3	"	"	--	"	95.2%	(45-149)	--	--	"	
Pentachlorophenol	"	221	---	66.7	"	"	--	332	66.6%	(14-176)	--	--	"	
Pyrene	"	154	---	13.3	"	"	--	166	92.8%	(39-138)	--	--	"	
Surrogate(s): *Fluorene-d10*		*Recovery:* *74.2%*			*Limits:* *24-125%*	"							*04/24/07 20:29*	
2,4,6-Tribromophenol		*69.1%*			*7-163%*	"							"	
Pyrene-d10		*91.6%*			*41-141%*	"							"	
Benzo (a) pyrene-d12		*92.5%*			*38-143%*	"							"	

Crystal Jones For Howard Holmes, Project Manager

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PBS Engineering	Project Name:	**Burgard Yard**	
4412 SW Corbett Ave.	Project Number:	18569.000	Report Created:
Portland, OR 97239	Project Manager:	Heidi Yantz	04/27/07 10:08

Polynuclear Aromatic Compounds and Pentachlorphenol per EPA 8270M-SIM - Laboratory Quality Control Results

TestAmerica - Portland, OR

QC Batch: 7040999 **Soil Preparation Method: EPA 3550**

Analyte	Method	Result	MDL*	MRL	Units	Dil	Source Result	Spike Amt	% REC	(Limits)	% RPD	(Limits)	Analyzed	Notes
Matrix Spike (7040999-MS1)				QC Source: PQD0622-05				Extracted: 04/23/07 16:00						RL3
Acenaphthene	EPA 8270m	322	---	299	ug/kg dry	20x	95.0	186	122%	(33-139)	--	--	04/25/07 02:21	
Benzo (a) pyrene	"	1560	---	299	"	"	1080	"	258%	(45-149)	--	--	"	M1
Pentachlorophenol	"	280	---	1490	"	"	ND	371	75.5%	(14-176)	--	--	"	
Pyrene	"	3940	---	299	"	"	2030	186	1030%	(39-138)	--	--	"	M1
Surrogate(s): Fluorene-d10		*Recovery: 89.5%*			*Limits: 24-125%*	"							*04/25/07 02:21*	
2,4,6-Tribromophenol		*86.3%*			*7-163%*	"							"	*Z3*
Pyrene-d10		*94.9%*			*41-141%*	"							"	
Benzo (a) pyrene-d12		*92.5%*			*38-143%*	"							"	
Matrix Spike Dup (7040999-MSD1)				QC Source: PQD0622-05				Extracted: 04/23/07 16:00						RL3
Acenaphthene	EPA 8270m	241	---	296	ug/kg dry	20x	95.0	184	79.3%	(33-139)	28.8%	(60)	04/25/07 02:48	
Benzo (a) pyrene	"	1040	---	296	"	"	1080	"	-21.7%	(45-149)	40.0%	"	"	M2
Pentachlorophenol	"	217	---	1480	"	"	ND	369	58.8%	(14-176)	25.4%	"	"	
Pyrene	"	2180	---	296	"	"	2030	184	81.5%	(39-138)	57.5%	"	"	
Surrogate(s): Fluorene-d10		*Recovery: 93.9%*			*Limits: 24-125%*	"							*04/25/07 02:48*	
2,4,6-Tribromophenol		*81.2%*			*7-163%*	"							"	*Z3*
Pyrene-d10		*105%*			*41-141%*	"							"	
Benzo (a) pyrene-d12		*97.5%*			*38-143%*	"							"	

Crystal Jones For Howard Holmes, Project Manager

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BEAVERTON, OR 97008-7132
ph: (503) 906.9200 fax: (503) 906.9210

PBS Engineering	Project Name:	**Burgard Yard**	
4412 SW Corbett Ave.	Project Number:	18569.000	Report Created:
Portland, OR 97239	Project Manager:	Heidi Yantz	04/27/07 10:08

Percent Dry Weight (Solids) per Standard Methods - Laboratory Quality Control Results

TestAmerica - Portland, OR

QC Batch: 7040697 **Soil Preparation Method: Dry Weight**

Analyte	Method	Result	MDL*	MRL	Units	Dil	Source Result	Spike Amt	% REC	(Limits)	% RPD	(Limits)	Analyzed	Notes
Duplicate (7040697-DUP1)				QC Source: PQD0621-01				Extracted: 04/17/07 08:25						
% Solids	NCA SOP	74.2	---	0.00	% by Weight	1x	77.4	--	--	--	4.22%	(20)	04/17/07 08:25	

QC Batch: 7040698 **Soil Preparation Method: Dry Weight**

Analyte	Method	Result	MDL*	MRL	Units	Dil	Source Result	Spike Amt	% REC	(Limits)	% RPD	(Limits)	Analyzed	Notes
Duplicate (7040698-DUP1)				QC Source: PQD0183-11				Extracted: 04/17/07 08:26						
% Solids	NCA SOP	69.2	---	0.00	% by Weight	1x	80.0	--	--	--	14.5%	(20)	04/17/07 08:26	

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Crystal Jones For Howard Holmes, Project Manager

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PBS Engineering	Project Name:	**Burgard Yard**	
4412 SW Corbett Ave.	Project Number:	18569.000	Report Created:
Portland, OR 97239	Project Manager:	Heidi Yantz	04/27/07 10:08

Notes and Definitions

Report Specific Notes:

M1	-	The MS and/or MSD were above the acceptance limits due to sample matrix interference. See Blank Spike (LCS).
M2	-	The MS and/or MSD were below the acceptance limits due to sample matrix interference. See Blank Spike (LCS).
Q10	-	Hydrocarbon pattern most closely resembles a blend of creosote or similar product as well as possible biogenic interference.
Q9	-	Hydrocarbon pattern most closely resembles creosote or similar product.
R3	-	The RPD exceeded the acceptance limit due to sample matrix effects.
RL3	-	Reporting limit raised due to high concentrations of non-target analytes.
Z3	-	The sample required a dilution due to the nature of the sample matrix. Because of this dilution, the surrogate spike concentration in the sample was reduced to a level where the recovery calculation does not provide useful information.

Laboratory Reporting Conventions:

DET	-	Analyte DETECTED at or above the Reporting Limit. Qualitative Analyses only.
ND	-	Analyte NOT DETECTED at or above the reporting limit (MDL or MRL, as appropriate).
NR/NA	-	Not Reported / Not Available
dry	-	Sample results reported on a Dry Weight Basis. Results and Reporting Limits have been corrected for Percent Dry Weight.
wet	-	Sample results and reporting limits reported on a Wet Weight Basis (as received). Results with neither 'wet' nor 'dry' are reported on a Wet Weight Basis.
RPD	-	RELATIVE PERCENT DIFFERENCE (RPDs calculated using Results, not Percent Recoveries).
MRL	-	METHOD REPORTING LIMIT. Reporting Level at, or above, the lowest level standard of the Calibration Table.
MDL*	-	METHOD DETECTION LIMIT. Reporting Level at, or above, the statistically derived limit based on 40CFR, Part 136, Appendix B. *MDLs are listed on the report only if the data has been evaluated below the MRL. Results between the MDL and MRL are reported as Estimated Results.
Dil	-	Dilutions are calculated based on deviations from the standard dilution performed for an analysis, and may not represent the dilution found on the analytical raw data.
Reporting Limits	-	Reporting limits (MDLs and MRLs) are adjusted based on variations in sample preparation amounts, analytical dilutions and percent solids, where applicable.
Electronic Signature	-	Electronic Signature added in accordance with TestAmerica's *Electronic Reporting and Electronic Signatures Policy*. Application of electronic signature indicates that the report has been reviewed and approved for release by the laboratory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Crystal Jones For Howard Holmes, Project Manager

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ANALYTICAL TESTING CORPORATION

11720 North Creek Pkwy N Suite 400, Bothell, WA 98011-8244 425-420-9200 FAX 420-9210
11922 E. First Ave, Spokane, WA 99206-5302 509-924-9200 FAX 924-9290
9405 SW Nimbus Ave, Beaverton, OR 97008-7145 503-906-9200 FAX 906-9210
2000 W International Airport Rd Ste A10, Anchorage, AK 99502-1119 907-563-9200 FAX 563-9210

CHAIN OF CUSTODY REPORT

Work Order #: 1QT0022

CLIENT: ARS Engineering & Environmental
REPORT TO: Heidi Yantz
ADDRESS: 4412 SW Corbett Avenue, Portland, OR 97239
PHONE: 503-248-1939 FAX: 503 248-0223

INVOICE TO:
P.O. NUMBER:

PROJECT NAME: Burgard Yard
PROJECT NUMBER: 18569.000
SAMPLED BY: CP/GW

TURNAROUND REQUEST
In Business Days *
Organic & Inorganic Analyses: 10 STD | 7 | 5 | 4 | 3 | 2 | 1 | <1
Petroleum Hydrocarbon Analyses: 5 STD. | 4 | 3 | 2 | 1 | <1
OTHER Specify:
* Turnaround Requests less than standard may incur Rush Charges.

PRESERVATIVE

REQUESTED ANALYSES

	CLIENT SAMPLE IDENTIFICATION	SAMPLING DATE/TIME	PCB's EPA 8082	MTPH-HCID	MATRIX (W, S, O)	# OF CONT.	LOCATION / COMMENTS	TA WO ID
1	B-1-2'	4/13/07 1000	X	X	S	2	CALL IF HCID Detections	
2	B-2-2'	1110	X	X				
3	B-3-2'	0840	X	X				
4	B-3-7'	0850	X	X				
5	B-4-2'	0920	X	X				
6	B-4-9.5'	0930	X	X				
7	B-5-2'	1230	X	X				
8	B-5-6'	1240	X	X				
9	B-6-2'	1155	X	X				
10	B-6-7'	1205	X	X				

RELEASED BY: [signature] DATE: 4/16/07
PRINT NAME: Colin Polk FIRM: PBS TIME: 1300
RECEIVED BY: Everest DATE: 4/16/07
PRINT NAME: Everest FIRM: Seaway TIME: 1355

RELEASED BY: Everest DATE: 4/16/07
PRINT NAME: Everest FIRM: Seaway #642 TIME: 1333
RECEIVED BY: Camille Holland #642 DATE: 4/16/07
PRINT NAME: Camille Holladay FIRM: TAP TIME: 1337

ADDITIONAL REMARKS:
TEMP: 2.3

CDC REV 09/2004

PAGE OF

TestAmerica
ANALYTICAL TESTING CORPORATION

11720 North Creek Pkwy N Suite 400, Bothell, WA 98011-8244 425-420-9200 FAX 420-9210
11922 E. First Ave, Spokane, WA 99206-5302 509-924-9200 FAX 924-9290
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2000 W International Airport Rd Ste A10, Anchorage, AK 99502-1119 907-563-9200 FAX 563-9210

CHAIN OF CUSTODY REPORT

Work Order #: PQD0622

CLIENT: PBS Engineering + Environmental
REPORT TO:
ADDRESS:
PHONE: FAX:
INVOICE TO:
P.O. NUMBER:

PROJECT NAME:
PROJECT NUMBER: 18569.000
SAMPLED BY: CP/GW

TURNAROUND REQUEST
In Business Days *
Organic & Inorganic Analyses: 10 (STD) 7 5 4 3 2 1 <1
Petroleum Hydrocarbon Analyses: 5 (STD) 4 3 2 1 <1
OTHER Specify:
* Turnaround Requests less than standard may incur Rush Charges.

PRESERVATIVE / REQUESTED ANALYSES

	CLIENT SAMPLE IDENTIFICATION	SAMPLING DATE/TIME		PCBs EPA 8082	metals												MATRIX (W, S, O)	# OF CONT.	LOCATION / COMMENTS	TA WO ID
1	B-7-2'	4/15/07	1030	X	X												S	2	CALL IF ACID DETECTIONS	
2	B-7-5'	↓	1040	X	X												↓	↓	↓	
3	B-8-2'	↓	1130	X	X												↓	↓	↓	
4	B-8-6'	↓	1140	X	X												↓	↓	↓	
5																				
6																				
7																				
8																				
9																				
10																				

RELEASED BY: [signature] DATE: 4/16/07
PRINT NAME: Colin Polk FIRM: PBS TIME: 1300
RECEIVED BY: Everest DATE: 4/16/7
PRINT NAME: Everest #642 FIRM: Senvoy TIME: 1255

RELEASED BY: Everest DATE: 4/16/7
PRINT NAME: Everest FIRM: Senvoy #642 TIME: 1333
RECEIVED BY: Camille Holladay DATE: 4/16/07
PRINT NAME: Camille Holladay FIRM: TAP TIME: 1337

ADDITIONAL REMARKS:

TEMP: 23

PAGE OF

COC REV 09/2004

TEST AMERICA SAMPLE RECEIPT CHECKLIST

Received By: (applies to temp at receipt)
Date: 4/16/07
Time: 1338
Initials: CH

Logged-in By:
Date: 4/17/07
Initials: CH

Unpacked/Labeled By:
Date: 4/17/07
Initials: CH

Work Order No. PWP0622
Client: PBS
Project: Burgard yd.

Container Type:
✓ Cooler
___ Box
___ None/Other ___

COC Seals:
___ Ship. Container
___ On Bottles
✓ None
___ Name
___ Date

Packing Material:
___ Bubble Bags ___ Styrofoam
___ Foam Packs
✓ None/Other Other ___

Refrigerant:
✓ Gel Ice Pack ___
___ Loose Ice
___ None/Other ___

Received Via: Bill#
___ Fed Ex ___ Client
___ UPS ___ TA Courier
___ DHL ___ Mid Valley
✓ Senvoy ___ TDP
___ GS ___ Other ___

Cooler Temperature (IR): 2.3 °C Plastic (Glass) (circle one) (Frozen filters, Tedlars and aqueous Metals exempt)

Temperature Blank? ___ °C or (NA)

Trip Blank? Y or N or (NA)

Sample Containers:		ID			ID
Intact?	(Y) or N		Metals Preserved?	Y or N or (NA)	
Provided by NCA?	(Y) or N		Client QAPP Preserved?	Y or N or (NA)	
Correct Type?	(Y) or N		Adequate Volume? (for tests requested)	(Y) or N	
#Containers match COC?	(Y) or N		Water VOAs: Headspace?	Y or N or (NA)	
IDs/time/date match COC?	(Y) or N		Comments:		
Hold Times in hold?	(Y) or N				

PROJECT MANAGEMENT

Is the Chain of Custody complete? Y or N If N, circle the items that were incomplete

Comments, Problems ___

Total access set up? Y or N
Has client been contacted regarding non-conformances? Y or N If Y, ___/___ Date Time

PM Initials: ___ Date: ___ Time: ___

(rev 3, 09/12/05)